

Title (en)
Coreless Motor

Title (de)
Kernloser Motor

Title (fr)
Moteur sans noyau

Publication
EP 1432105 A3 20051130 (EN)

Application
EP 03257971 A 20031217

Priority
JP 2002365327 A 20021217

Abstract (en)
[origin: EP1432105A2] Coreless motor comprising a casing (1) with a two part coil yoke (7) positioned therein, a magnet holder (6) with a cylindrical portion (6a) fitted into a cylindrical boss (2) in the casing (1) and a ring magnet (5) mounted on its exterior and confronting the coil yoke (7). A spindle (4) is mounted by bearings (3) in the cylindrical portion (6a) of the magnet holder (6). A coil holder (9) mounted on the spindle (4) supports coils (8) each having flat arcuate portions which overlie upper and lower surfaces of the magnet (5) and curved-and-folded portions which overlie an external circumferential surface of the magnet. Each coil constituting a hollow unit. The lower flat coil portions are held in a gap between a flange (9a) extending outwardly from the spindle (4) and a lower annular reinforcing plate (10). The upper flat coil portions are connected to an upper annular reinforcing plate (15). <IMAGE>

IPC 1-7
H02K 23/58; **H02K 3/47**

IPC 8 full level
H02K 1/18 (2006.01); **H02K 3/00** (2006.01); **H02K 3/47** (2006.01); **H02K 5/173** (2006.01); **H02K 23/58** (2006.01)

CPC (source: EP US)
H02K 3/47 (2013.01 - EP US); **H02K 5/1735** (2013.01 - EP US); **H02K 23/58** (2013.01 - EP US)

Citation (search report)

- [Y] JP S5731365 A 19820219 - TOKYO PARTS KOGYO KK
- [Y] EP 1176694 A1 20020130 - NAMIKI PRECISION JEWEL CO LTD [JP]
- [A] AT 337303 B 19770627 - INTERELECTRIC AG [CH]
- [A] US RE30761 E 19811006
- [A] JP S58112453 A 19830704 - SANYO ELECTRIC CO, et al
- [A] US 5793133 A 19980811 - SHIRAKI MANABU [JP], et al
- [A] JP H0345153 A 19910226 - SHICOH ENG CO LTD, et al
- [A] DE 2404059 A1 19750807 - NILES PARTS CO LTD & PATENT ABSTRACTS OF JAPAN vol. 006, no. 099 (E - 111) 8 June 1982 (1982-06-08) & PATENT ABSTRACTS OF JAPAN vol. 007, no. 222 (E - 201) 4 October 1983 (1983-10-04) & PATENT ABSTRACTS OF JAPAN vol. 015, no. 185 (E - 1066) 13 May 1991 (1991-05-13)

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1432105 A2 20040623; **EP 1432105 A3 20051130**; **EP 1432105 B1 20080220**; CN 100525021 C 20090805; CN 1520010 A 20040811; DE 60319199 D1 20080403; DE 60319199 T2 20090305; JP 2004201387 A 20040715; JP 3790214 B2 20060628; US 2004164638 A1 20040826; US 6940206 B2 20050906

DOCDB simple family (application)
EP 03257971 A 20031217; CN 200310120916 A 20031216; DE 60319199 T 20031217; JP 2002365327 A 20021217; US 73582003 A 20031216